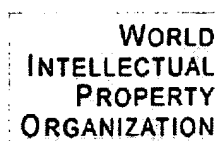


	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments
13	BRS	L13	3	piezoelectric adj2 actuator same plurality and row same inactive same active same opposite	US- PGPUB ; USPAT ; USOCR ; FPRS; EPO; JPO; DERWE NT; IBM_T DB	2007/01/2 6 16:02	

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments
1	IS&R	L1	1722	(310/328).CCLS.	USPAT	2007/01/26 14:23	
2	IS&R	L2	934	(310/366).CCLS.	USPAT	2007/01/26 14:56	
3	IS&R	L3	81	(310/366).CCLS.	FPRS; EPO; JPO; DERWE NT; IBM_T DB	2007/01/26 14:58	
4	IS&R	L4	130	(310/328).CCLS.	FPRS; EPO; JPO; DERWE NT; IBM_T DB	2007/01/26 15:01	
5	IS&R	L5	419	(310/328).CCLS.	US- PGPUB	2007/01/26 15:06	
6	IS&R	L6	74	(310/366).CCLS.	US- PGPUB	2007/01/26 15:16	
7	IS&R	L7	626	(347/68,70,71).CCLS.	US- PGPUB	2007/01/26 15:22	
8	IS&R	L8	1256	(347/68,70,71).CCLS.	USPAT	2007/01/26 15:25	
9	BRS	L9	0	takahashi-tomoaka.in.	USPAT	2007/01/26 15:25	
10	BRS	L10	39	takahashi-tomoaki.in.	USPAT	2007/01/26 15:25	
11	BRS	L11	1	"20010017503"	US- PGPUB	2007/01/26 15:34	
12	BRS	L12	1	"20010017503" and opposite	US- PGPUB	2007/01/26 16:02	



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# Results of searching in PCT for:

piezoelectric near actuator near plurality and row and inactive near active near opposite: 0 records

[\[Search Summary\]](#)

Refine Search

piezoelectric near actuator near plurality and row and in



No records matching your query found in PCT

## Search Summary



piezoelectric NEAR actuator: 9021 occurrences in 1575 records.

piezoelectric NEAR opposite: 413 occurrences in 243 records.

(piezoelectric NEAR actuator AND piezoelectric NEAR opposite): 59 records.

piezoelectric NEAR active: 625 occurrences in 292 records.

piezoelectric NEAR opposite: 413 occurrences in 243 records.

(piezoelectric NEAR active AND piezoelectric NEAR opposite): 22 records.

((piezoelectric NEAR actuator AND piezoelectric NEAR opposite) AND (piezoelectric NEAR active AND piezoelectric NEAR opposite)): 4 records.

piezoelectric NEAR plurality: 1817 occurrences in 438 records.

piezoelectric NEAR opposite: 413 occurrences in 243 records.

(piezoelectric NEAR plurality AND piezoelectric NEAR opposite): 30 records.

piezoelectric NEAR active: 625 occurrences in 292 records.

piezoelectric NEAR opposite: 413 occurrences in 243 records.

(piezoelectric NEAR active AND piezoelectric NEAR opposite): 22 records.

((piezoelectric NEAR plurality AND piezoelectric NEAR opposite) AND (piezoelectric NEAR active AND piezoelectric NEAR opposite)): 3 records.

((((piezoelectric NEAR actuator AND piezoelectric NEAR opposite) AND (piezoelectric NEAR active AND piezoelectric NEAR opposite)) AND ((piezoelectric NEAR plurality AND piezoelectric NEAR opposite) AND (piezoelectric NEAR active AND piezoelectric NEAR opposite)))): 2 records.

row NEAR active: 1128 occurrences in 433 records.

row NEAR opposite: 683 occurrences in 384 records.

(row NEAR active AND row NEAR opposite): 10 records.

(((((piezoelectric NEAR actuator AND piezoelectric NEAR opposite) AND (piezoelectric NEAR active AND piezoelectric NEAR opposite)) AND ((piezoelectric NEAR plurality AND piezoelectric NEAR opposite) AND (piezoelectric NEAR active AND piezoelectric NEAR opposite))) AND (row NEAR active AND row NEAR opposite)): 0 records.

inactive NEAR active: 15275 occurrences in 7533 records.

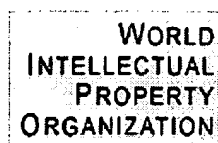
inactive NEAR opposite: 51 occurrences in 25 records.

(inactive NEAR active AND inactive NEAR opposite): 13 records.

(((((piezoelectric NEAR actuator AND piezoelectric NEAR opposite) AND (piezoelectric NEAR active AND piezoelectric NEAR opposite)) AND ((piezoelectric NEAR plurality AND piezoelectric NEAR opposite) AND (piezoelectric NEAR active AND piezoelectric NEAR opposite))) AND (row NEAR active AND row NEAR opposite)) AND (inactive NEAR active AND inactive NEAR opposite)): 0 records.

Search Time: 11.38 seconds.





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# Results of searching in PCT for:

piezoelectric near actuator near plurality and row and inactive near active near revers\*: 0 records [\[Search Summary\]](#)

[Refine Search](#) | piezoelectric near actuator near plurality and row and in



No records matching your query found in PCT

## Search Summary



piezoelectric NEAR actuator: 9021 occurrences in 1575 records.  
 piezoelectric NEAR revers\*: 127 occurrences in 49 records.  
 (piezoelectric NEAR actuator AND piezoelectric NEAR revers\*): 11 records.  
 piezoelectric NEAR active: 625 occurrences in 292 records.  
 piezoelectric NEAR revers\*: 127 occurrences in 49 records.  
 (piezoelectric NEAR active AND piezoelectric NEAR revers\*): 2 records.  
 ((piezoelectric NEAR actuator AND piezoelectric NEAR revers\*) AND (piezoelectric NEAR active AND piezoelectric NEAR revers\*)): 0 records.  
 piezoelectric NEAR plurality: 1817 occurrences in 438 records.  
 piezoelectric NEAR revers\*: 127 occurrences in 49 records.  
 (piezoelectric NEAR plurality AND piezoelectric NEAR revers\*): 5 records.  
 piezoelectric NEAR active: 625 occurrences in 292 records.  
 piezoelectric NEAR revers\*: 127 occurrences in 49 records.  
 (piezoelectric NEAR active AND piezoelectric NEAR revers\*): 2 records.  
 ((piezoelectric NEAR plurality AND piezoelectric NEAR revers\*) AND (piezoelectric NEAR active AND piezoelectric NEAR revers\*)): 0 records.  
 (((piezoelectric NEAR actuator AND piezoelectric NEAR revers\*) AND (piezoelectric NEAR active AND piezoelectric NEAR revers\*)) AND ((piezoelectric NEAR plurality AND piezoelectric NEAR revers\*) AND (piezoelectric NEAR active AND piezoelectric NEAR revers\*))) : 0 records.  
 row NEAR active: 1128 occurrences in 433 records.  
 row NEAR revers\*: 355 occurrences in 173 records.  
 (row NEAR active AND row NEAR revers\*): 9 records.  
 (((piezoelectric NEAR actuator AND piezoelectric NEAR revers\*) AND (piezoelectric NEAR active AND piezoelectric NEAR revers\*)) AND ((piezoelectric NEAR plurality AND piezoelectric NEAR revers\*) AND (piezoelectric NEAR active AND piezoelectric NEAR revers\*))) AND (row NEAR active AND row NEAR revers\*)): 0 records.  
 inactive NEAR active: 15275 occurrences in 7533 records.  
 inactive NEAR revers\*: 124 occurrences in 74 records.  
 (inactive NEAR active AND inactive NEAR revers\*): 21 records.  
 (((((piezoelectric NEAR actuator AND piezoelectric NEAR revers\*) AND (piezoelectric NEAR active AND piezoelectric NEAR revers\*)) AND ((piezoelectric NEAR plurality AND piezoelectric NEAR revers\*) AND (piezoelectric NEAR active AND piezoelectric NEAR revers\*))) AND (row NEAR active AND row NEAR revers\*)) AND (inactive NEAR active AND inactive NEAR revers\*)): 0 records.

Search Time: 6.4 seconds.





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**Search** Query :  
(((piezoelectric near actuator near plur?

Query: ((piezoelectric near actuator near plurality )) <AND> ( ( (active and inactive and (opposite or revers\*)) ) <in> claims )

**Sorry, no patents were found matching your query**

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**RESULT LIST**

7 results found in the Worldwide database for:

**piezoelectric and actuator** in the title AND **plurality and active and inactive** in the title or abstract

(Results are sorted by date of upload in database)

**1 LAMINATED PIEZOELECTRIC ACTUATOR**

Inventor: KOMAMURA HIDEO

Applicant: NEC TOKIN CORP; NEC TOKIN CERAMICS CORP

EC:

IPC: **H01L41/083; H01L41/083**; (IPC1-7):  
H01L41/083Publication info: **JP2002299706** - 2002-10-11**2 LAMINATED PIEZOELECTRIC ACTUATOR**Inventor: ONIZUKA KATSUHIKO; HIGASHIBETSUPU  
MAKOTO; (+1)

Applicant: KYOCERA CORP

EC:

IPC: **G01L1/16; H01L41/083; G01L1/16** (+3)Publication info: **JP11340535** - 1999-12-10**3 LAMINATED TYPE PIEZOELECTRIC ACTUATOR**

Inventor: ASHIDA KOKI; ONIZUKA KATSUHIKO; (+3)

Applicant: KYOCERA CORP

EC:

IPC: **H01L41/083; H01L41/22; H01L41/083** (+3)Publication info: **JP11238918** - 1999-08-31**4 PIEZOELECTRIC ACTUATOR AND ITS MANUFACTURE**Inventor: KANDA TORAHIKO; NAKAMURA HIROFUMI;  
(+1)

Applicant: NIPPON ELECTRIC CO

EC: B41J2/14D3; H01L41/083; (+1)

IPC: **B41J2/045; B41J2/055; B41J2/14** (+13)Publication info: **JP11221917** - 1999-07-28**5 PIEZOELECTRIC ELEMENT AND PIEZOELECTRIC ACTUATOR USING IT**Inventor: WATABE YOSHIYUKI; SADAMURA SHIGERU;  
(+1)

Applicant: HITACHI METALS LTD

EC:

IPC: **H04R17/00; H01L41/083; H03H9/02** (+6)Publication info: **JP8242023** - 1996-09-17**6 MANUFACTURE OF PIEZOELECTRIC ELEMENT TYPE ACTUATOR**

Inventor: KIMURA TASUKE

Applicant: FUJITSU LTD

EC:

IPC: **B41J2/295; B06B1/06; B41J2/235** (+8)Publication info: **JP4049053** - 1992-02-18**7 COMPOSITE PIEZOELECTRIC ACTUATOR**

Inventor: SATO HIROFUMI

Applicant: TOKIN CORP

EC:

IPC: **H01L41/083; H01L41/09; H01L41/083** (+2)Publication info: **JP2154486** - 1990-06-13

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